

# ISOMETRIC VERIFICATION STATEMENT

350Solutions, Inc. has conducted a verification of the removal claims in the greenhouse gas (GHG) statement under the Isometric Standard V1.0.0 and Biomass Geological Storage Protocol for the following company:

Technology & Company Information		
GHG Removal Supplier & Facility Operator	Facility Location(s)	Greenhouse Gas Removal Method
Vaulted	<b>Great Plains Facility:</b> 7513 KS-14 Hutchinson, KS 67501	Biomass Geological Storage

350Solutions affirms that the organization has the appropriate equipment, procedures, and protocols in place and documented to quantify GHG removal through the injection of mixed woody wastes in permitted Class I and V wells, via measurement of injected biomass, determination of biomass C content, and appropriate emissions calculations in accordance with the requirements of the Isometric Standard V1.0.0, Biomass Geological Storage Protocol, Biomass Feedstock Accounting Module, and Biomass or Bio-oil Storage in Salt Caverns. Eligibility criteria determinations are as follows:

Eligibility Criteria		
Criteria	Eligibility Status	Rationale
<i>Validated against approved protocols</i>	Eligible	The following Isometric Approved Protocols/Modules were used: Biomass Geological Storage, Biomass Feedstock Accounting, Biomass or Bio-oil Storage in Salt Caverns
<i>Boundaries</i>	Eligible	Project Boundaries are defined geographically at the point of ownership of the biomass until it is emplaced onsite during the specified time period
<i>Baseline</i>	Eligible	See Biomass Feedstock Accounting Protocol Requirements
<i>Additionality</i>	Eligible	Project not required by regulation. Carbon finance supports financial viability
<i>Leakage</i>	Eligible	Limited by immediate emplacement upon receipt of feedstock and all returns in brine are reinjected to Class 1 well.
<i>Default emission factors, proxies and models</i>	Eligible	Carbon content proxies meet the calculation requirements in the Biomass Geological Storage Protocol, all other factors are literature cited.
<i>Uncertainty</i>	Eligible	Sensitivity analysis provided, with carbon content found as a listable parameter.
<i>Durability and monitoring</i>	Eligible	Operating permits require monitoring of decommissioned wells for several years.
<i>Risk of reversal</i>	Eligible	Risk Assessment Questionnaire score indicated a Low (5%) risk.
<i>Environmental and socioeconomic impacts</i>	Eligible	All necessary permits required, meetings with public held.
<i>Life cycle assessment (LCA) Policies</i>	Eligible	See Biomass Geological Storage Protocol Requirements
<i>Documentation</i>	Eligible	PPD completed appropriately
<i>Eligibility</i>	Eligible	Project is registered
<i>Project crediting</i>	Eligible	Period is complete and removals verified
<i>Stakeholder input process</i>	Eligible	Community engagement meeting prior to operations, ongoing input managed through KS Dept. of Health and Env.
<i>Regulatory compliance</i>	Eligible	Maintenance of permits meet requirements



**Removals Quantity:**  
**1072.97 tonnes**  
**Eligible Period:**  
**11/17/2023 - 03/15/2024**

**Issue Date:**  
**April 09, 2024**

**Biomass Geological Storage**

<i>System boundary and GHG emission scope</i>	Eligible	Project Boundaries are defined geographically at the point of ownership of the biomass until it is emplaced onsite during the specified time period
<i>Baseline</i>	Eligible	Assumes 100% decomposition of all biomass carbon to CO <sub>2</sub> within 15 years
<i>Net CDR calculation</i>	Eligible	Calculation method follows protocol and is reflected in LCA document
<i>Calculation approach</i>	Eligible	Removal is for only the specified time frame.
<i>Calculation of CO<sub>2</sub>e removal</i>	Eligible	Calculation method follows protocol and is reflected in GHG document
<i>Calculation of CO<sub>2</sub>e stored</i>	Eligible	Calculation method follows protocol and is reflected in GHG document
<i>Calculation of CO<sub>2</sub>e counterfactual</i>	Eligible	Calculation method follows protocol and is reflected in GHG document
<i>Calculation of CO<sub>2</sub>e LCA emissions</i>	Eligible	Calculation method follows protocol and is reflected in GHG document

**Biomass Feedstock Accounting**

<i>Eligibility criteria for biomass feedstocks with potential market leakage impacts</i>	Eligible	Meets EC4: project pays a 3 <sup>rd</sup> party provider for feedstock.
<i>Counterfactual storage eligibility</i>	Eligible	Decomposition or burned on site by feedstock provider.
<i>Dedicated feedstock eligibility</i>	Eligible	Biomass is diverted from landfill to feedstock provider for recycling.

**Biomass or Bio-oil Storage in Salt Caverns**

<i>Salt Cavern Characteristics</i>	Eligible	Appropriate design and permitting meets all requirements.
<i>Permit for Operations</i>	Eligible	Permit obtained.
<i>Operations and Monitoring</i>	Eligible	Monthly compliance reports specify required measurements and frequency. All reports completed and submitted on time.

**OVERALL ELIGIBILITY**

**ELIGIBLE**

*Eligible Period*

**11/17/2023 to 03/15/2024**

350Solutions has verified eligibility of the facility for the removal of greenhouse gasses. Greenhouse gas removal credits were calculated in accordance with the Isometric Standard, Biomass Geological Storage Protocol, Biomass Feedstock Accounting Module, and Biomass or Bio-oil Storage in Salt Caverns. Additional details regarding the validation of the facility and can be found in the Vaulted Deep Isometric Standard Project Validation and Verification Report (Document ID 350VR-Vaulted-ISO2304) while verification of removals for the current reporting period can be found in the Vaulted Deep Isometric Standard Verification Report (Document ID 350VR-Vaulted-ISO2401).

**Verifier Information**

<b>Verification Body</b>	<b>Lead Verifier</b>	<b>Verification ID No.</b>
350Solutions, Inc.	Kevin McCabe	VS-Vaulted-ISO2401

Signed: Kevin McCabe (Lead Verifier)

*Kevin McCabe*



Tim Hansen (Peer Reviewer)

*Tim Hansen*



**Removals Quantity:**  
1401.27 tonnes  
**Eligible Period:**  
8/22/2023 - 11/16/2023

Issue Date:  
April 09, 2024

# PROJECT VALIDATION AND VERIFICATION STATEMENT:

## Vaulted Deep

### Additional Information

#### TECHNOLOGY DESCRIPTION

The Vaulted process utilizes mixed woody waste, which is a mix of organic woody wastes including tree limbs, branches, pallets and smaller organic waste like lawn clippings and stores them geologically. At the Vaulted Great Plains site, this mixed woody waste is processed into a slurry through the addition of recovered brine. The produced slurry is pumped to a slurry processing unit where the particles are sized via grinding until any entrained gasses are released. The processed slurry is pumped into underground salt caverns for geological storage. The degassed slurry settles to the bottom of the cavern and does not return with the displaced brine. As the slurry is pumped into the cavern, brine is displaced and stored in large steel tanks for use in the next injection batch. The salinity of the injected brine is monitored to ensure that the integrity of the cavern remains intact. As the cavern fills with solids, any excess brine that is not reused for slurry production is allowed to return underground in a Class I well. The process is summarized in Figure 1.

**Vaulted's Great Plains Facility Layout**

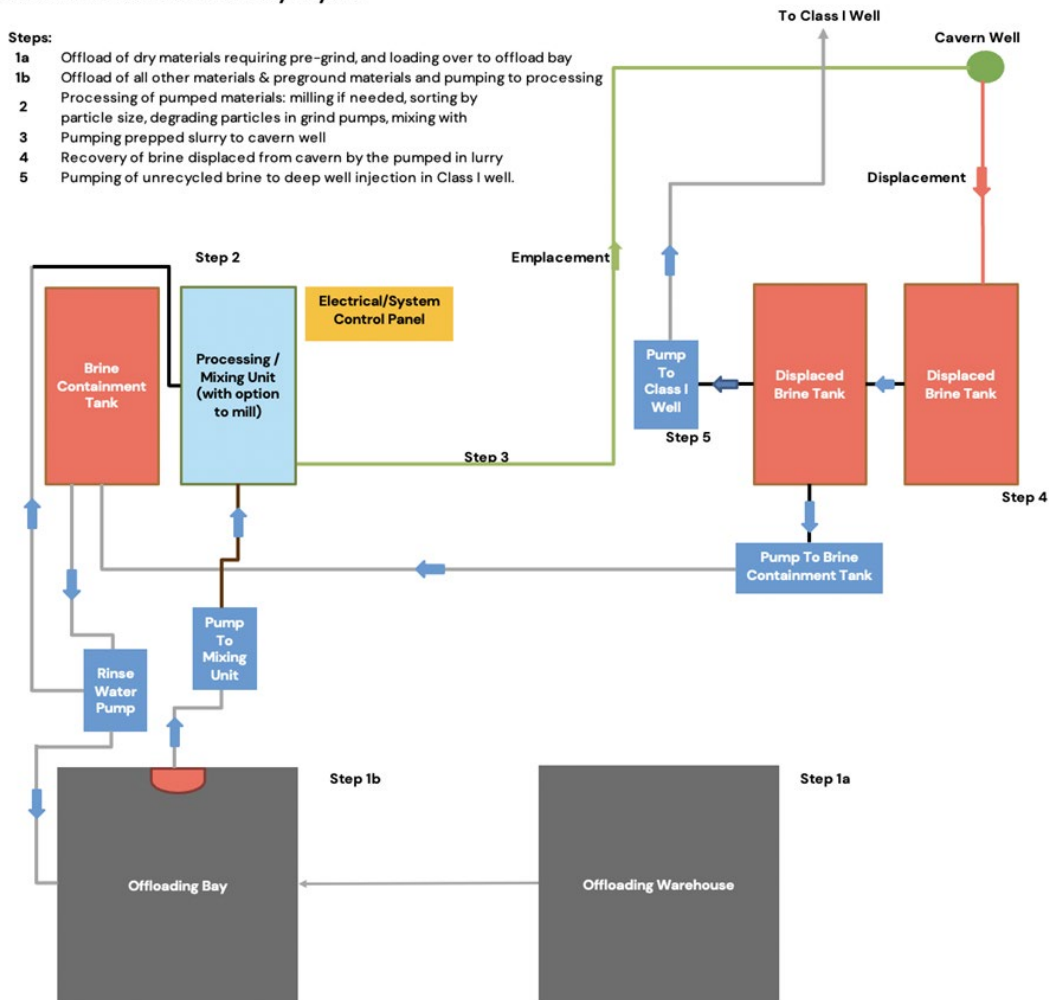


Figure 1. VAULTED GREAT PLAINS SITE GEOLOGIC CARBON STORAGE PROCESS

## VERIFICATION DESCRIPTION

Verification activities were conducted by 350Solutions to independently verify the removal claims submitted by Vaulted Deep. The verification consisted of a document review which was conducted following the specifications of Isometric Standard V1.0.0, the Biomass Geological Storage Protocol and supporting modules (Biomass Feedstock Accounting Module, and Biomass or Bio-oil Storage in Salt Caverns).

## DATA QUALITY & LEVEL OF ASSURANCE

350Solutions is an ANAB-accredited ISO/IEC 17020:2012 independent inspection body for ISO 14034:2016 Environmental Technology Verification. The 350Solutions Quality Management Plan and Quality Systems Procedures are utilized and generally apply to activities associated with the greenhouse gas removal verification performed in accordance with the Isometric Standard. 350Solutions utilized a reasonable level of assurance in performance for the verification.

In broad terms, the data and data collection practices provided by Vaulted Deep in accordance with the Isometric Standard and Biomass Geological Storage Protocol requirements was found to be acceptable for verification of greenhouse gas removal claims for this feedstock. Requirements and recommendations for improvement of data quality are provided in the Verification Report. All findings of the data quality review support verification of the performance claims and conform to the requirements of the standards.

*Notice: Validations and verifications conducted by 350Solutions are based on an evaluation of technology performance and greenhouse gas removal claims via site visit observations and review of data submitted by the inspected company. Validations and verifications are completed in accordance with rules and methodologies specified by client and utilizing the appropriate quality assurance procedures. 350Solutions makes no expressed or implied warranties as to the performance of the technology and does not certify that a technology will always operate at the levels verified, nor that it meets all state, local, or federal legal requirements. 350Solutions, Inc. declares that we are an impartial validation and verification body, free from any conflicts of interest, capable, and qualified to complete this validation and verification according to Isometric Standard and related Validation and Verification Body Requirements*